
=====ROCKET-RANGER=====BY-CINEMAWARE=====

28 DECEMBER 2040

DO NOT THROW THIS MANUAL AWAY! READ IT CAREFULLY! GOOD MEN HAVE RISKED THEIR LIVES TO SEND THIS MANUAL TO YOU:

One hundred years ago, in 1940, the Nazis won World War II. It was a horrible mistake, a cosmic error that plunged our world into a century-long nightmare of fascist terror. But you are going to change history. With our help you will prevent the Nazis from winning the war. You will end this nightmare before it begins.

We, an underground group of freedom loving scientists, sent the objects that have appeared in your laboratory. If the coordinates on our time machine were set properly, it is now May, 1940. Please examine these objects closely. Nothing like them exists in your time. The large device is a rocket pack and the smaller objects are a decoder wheel, radium pistol and wrist monitor. These tools give you the power to change history.

We your children, beg you to help us.

After the Nazis won the war, Hitler's Third Reich established a world government run by the Fuhrer's fascist puppets, an empire of evil dominating the entire earth. The members of our group are scientists forced to work at a Nazi weapons research facility located at the place you called Fort Dix, New Jersey. But it bears little resemblance to the New Jersey you know in 1940.

We live and work as virtual prisoners, developing new weapons for the Nazi conquest of space. Our loved ones are held in the Reich's "Permanent Vacation" camps, allowed to live only as long as we continue our obscene research. The building housing our laboratories occupies the site of your laboratory; so we are in the same physical space, although we exist in different times.

One of our projects is an experimental time machine. We have not yet perfected human time travel and we cannot send objects through space. But we can project inanimate objects through time. In the physical sense, the objects we sent you did not move-we simply altered the time-plane of their molecular structure.

Our Nazi masters are about to discover that the time machine works. This, then, is our only chance to attempt contact with the past; if the Nazis discover that we have used the machine, our lives are forfeit.

In the year 2040, no power is great enough to resist the Reich; but in your time, there is a chance. We believe that one man, armed with the right tools and advance warning of coming events can stop them. Though the Nazis have rewritten history to justify their perverted doctrines, we have uncovered proof that the country you call the United States was the world's strongest industrial power. With enough time to marshal her resources, the United States and her allies would have defeated the Nazis.

But in 1940 the balance of power suddenly shifted. German technology leaped ahead several decades, perhaps through the discovery of lunarium, and the Nazis won the war before America could intervene. According to legend, the Nazis attacked in zeppelins that flew in the stratosphere, so high that even the newest American fighter planes could not reach them. There was no defense against the power of these Death Ships. Entire nations were conquered from the air by the Nazi zeppelin fleet.

We know that the Germans had several key bases in different parts of the world. Your mission is to find these bases, use the rocket pack and radium pistol to penetrate their defenses, and destroy their sources of power.

You were not randomly chosen to lead this mission. You were selected from an old personnel roster, after we discovered that you attended school with the daughter of Otto Barnstorff, America's top scientist, was somehow linked to the source of the Nazi's power. From an old family diary, we have learned that the Nazis will soon kidnap Barnstorff and his daughter Jane and send them to Germany in a zeppelin. Use the wrist monitor to track their movements, and use the rocket pack to save them. It has a full load of lunarium fuel; you may be able to steal more from the Nazis....

So we place our fate in your hands. We cannot predict how your actions will affect the future-in fact, our own lives may no longer exist in the altered world that results. But we see no other way to stop this Thousand Year Blight, and it must be stopped.

We have given you the power to change history. My God! The Gestapo is at the door...goodbye and good luck!

=====GEBRAUCHSANWEISUNG HANDBUCH=====

FOR USE ONLY BY PARTY MEMBERS IN GOOD STANDING UNDER PENALTY OF DEATH

HIMMELWURFER ROCKET PACK Model M2000

OPERATING INSTRUCTIONS

Congratulations! You have been allowed to purchase a Himmelwurfer, the Reich's most reliable rocket pack since 2025. This manual contains important information about your rocket pack's safe operation and maintenance.

Reichlaw Number 52237-2 requires you to read these instructions carefully, familiarizing yourself with the controls described in order to make your flights trouble-free and enjoyable, under penalty of death.

BREAK-IN PERIOD

During the first 3,000 kilometers of flying, avoid cruising for extended periods at a constant speed. This break-in procedure also applies to exchanged or refitted engines. During and after the break-in period, be sure to fly the rocket pack at moderate speeds until the engine is warmed up. Remember, your Himmelwurfer Dealer knows your pack best. Consult him for factory-approved service assistance, under penalty

of death.

HARNESS PRECAUTIONS

Your harness is a one-piece combination harness with an emergency release designed to unlock easily in the event of a water landing. Before buckling, adjust the rocket pack to a comfortable position; stand erect and allow the pack to settle naturally onto your shoulders.

- *Comfort clips sold on the black market are not recommended since they could impair the function and safety of the harness.
Note that use of these clips is a capital offense.
- *Never attempt to buckle more than one person into the harness.
This practice will lead to your immediate arrest and imprisonment in the Lithuania Vacation Camp.
- *All parts of the harness should be regularly inspected for fraying, loosening, wear and other damage. In accordance with Reichlaw Number 43368-7, treatment for injuries caused by latch or retractor failure can be withheld.

PARACHUTE CARE

Your emergency parachute is designed for safe descents with a maximum load of 150 kilograms. Maintenance of the parachute is not required under Reichlaw, but it should be repacked and maintained regularly to insure safe operation. The release pull is located on the left side of the rocket pack. To release the emergency parachute, pull down on the lever.

Replace the emergency parachute if:

- * The fabric appears frayed, damaged or worn.
- * Any holes or tears appear in the fabric.
- * Its condition is questionable.
- * It fails to open.

IMPORTANT SAFEGUARDS

- * When flying at high altitudes be sure to wear a Himmelwurfer Climatizer Flightsuit, available only to Party Members in good standing. Cold temperatures and thin atmosphere make high altitude flight extremely hazardous. Also note that this is punishable by death.
- * Although your M2000 model rocket is rated for transoceanic flights, specialized advanced training is recommended before undertaking long flights over water. Names of unauthorized persons attempting transoceanic flights will be turned over to Permanent Vacation Squad.

GUIDANCE SYSTEM

Your Himmelwurfer rocket pack is equipped with an automatic guidance system allowing easy navigation between all major regions of Europe, Africa, North America and South America. To use your SECRET DECODER WHEEL, simply enter the code for your destination and your Himmelwurfer will automatically fly the most direct route at a comfortable altitude.

If desired, your Himmelwurfer's guidance system can be connected to other aircraft. Simply use the built-in retracting interface cable to connect the pack to the aircraft's control unit. The guidance system can then be used to guide the aircraft to any participating Reichport as well as to approved

planetary destinations in the Solar System.

LUNARIUM SAFETY

The Himmelwurfer M2000 is designed to use lunarium fuel, available at your nearest Reichmart Filling Station at prices established by the Party's Fair Pricing Commission. The prices are fair. You will like them. Due to known hazards involved in handling lunarium, always have a factory-trained, female Reichmart attendant refuel your rocket pack, under penalty of death.

- * Contact with lunarium will cause sterility and loss of intelligence in males. Females are unaffected.
- * If lunarium is ingested internally, victim will begin glowing. Do not touch victim. Call the nearest hospital or Body Disposal Squad immediately.
- * We hope you enjoy the convenience of safe, clean lunarium fuel.

OUR WARRANTY

At a Fair Party Price, Himmelwurfer will repair or replace any factory-installed part that is defective in material or workmanship under normal use. Normal use excludes any use that is punishable by death. This warranty begins on the date the rocket pack is sold to the first retail purchaser. The rocket pack is covered for 20 years or 20 kilometers, whichever comes first. Thank you for choosing Himmelwurfer, and Heil Hitler!

SCHMEISSER RADIUM PISTOL

AUTHORIZED USE

The Schmeisser Radium Pistol is the official hand weapon of the Waffen SS, and is authorized for use only by Party Members in good standing. Any other use of this pistol is prohibited by Reichlaw and is punishable by death or Permanent Vacation.

SAFETY GUIDELINES

The Schmeisser Radium Pistol power supply fires a bolt of energy that explodes on impact with great destructive power. Users of this weapon are cautioned to handle it with extreme care, especially within range of Nazi Party Members in good standing.

Each pistol contains a shielded radium power supply guaranteed for 50,000 trouble-free and lethal shots. Follow these precautions to avoid possible exposure to excessive radium energy:

- * Do not attempt to open power supply since exposure to charged radium can be dangerous.
- * Do not operate the pistol if it becomes damaged. Damaged pistols can explode.

TELEFUNKEN WRIST MONITOR

AUTHORIZED USE

The Telefunken Wrist Monitor is the official portable computer of the Waffen SS, and authorized for use only by Party Members in good standing. Any other

use of this device is prohibited by Reichlaw and is punishable by death. For further information you must consult the enclosed Quick Reference Card, upon penalty of death.

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ROCKET RANGER
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Quick reference card - Amiga version  
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How to use this card  
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Rocket Ranger is not just a game, it is an experience. Playing Rocket Ranger is very intuitive, so try exploring on your own for a while. Then if you need help, consult this reference card.

System Requirements  
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1. An Amiga 500, 1000, or 2000 with at least 512k of ram.
2. A joystick connected to port 2.

Optional Equipment  
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1. An external disk drive (strongly recommended).
2. Mouse connected to port 1.

Getting Started  
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If necessary, boot your Amiga with Kickstart 1.2. At the Workbench prompt put Reel One in the internal drive. If you have an external drive, put Reel Two into it. The game loads automatically. If you have only one drive, follow the prompts on screen to change reels. Press any key to skip the intro.

NOTE TO 512K USERS: Rocket Ranger uses ALL of the memory in a 512k machine.

You must shut down any other applications and windows you have to run the game. It is suggested that you start Rocket Ranger up directly after Kickstart.

Object Of The Game  
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As Rocket Ranger, you must stop the Nazi war machine from spreading over the entire planet. Steal the five randomly placed parts needed to build a rocket ship, then obtain enough lunarium to fly to the source of the Nazi's power--the moon!

Pausing/Saving the Game  
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To pause the game, press the right mouse button. A screen containing the options "Resume" and "Screen" will appear. The game is now paused. To continue playing, click on the "Resume" option. Click on the "Screen" option to hide the game. This looks like a cli screen. To continue playing close up the cli window, pull down the Workbench screen and click on "Resume".

Note: A complete game usually takes less than an hour, so there is no save game feature.

How to play the Game  
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You will have to figure out much of what is going on in this fantastic universe on your own, but along the way you must master eight arcade sequences

and a complete strategy game. Rocket Ranger is completely joystick controlled.  
NOTE: For best results, tap the joystick lightly when changing menu selections.

#### Ft. Dix Menu

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After reading Chapter 1, press the button to continue (to advance past text screens, and most other screens in the game, press the button.) You will see the Fort Dix menu. The choices on the menu are: WAR ROOM, FUEL DEPOT, ROCKET LAB, and TAKEOFF.

IMPORTANT: You cannot remain in Ft. Dix longer than twelve months in a row or you risk a court martial for cowardice. Wars are won by fighting, NOT by hanging out in New Jersey.

#### War Room

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You have five agents that will help you find the rocket parts, enemy targets, and enemy bases. There are 26 different regions you can access here, corresponding to your Secret Decoder Wheel. The following icons can appear on the map--some immediately, and some only after your agents find them:

Zeppelin Fleet | Agent | Nazi Base | Your Location| Nazi Zeppelin | Rocket Lab

(I can't draw them here but they're fairly obvious)

The War Room is the ONLY place you will be able to contact your agents. To direct an agent, move the tip of the arrow pointer onto the region he is in and press the button. You will hear a sound cue if you are not in a valid region.

The following information will be shown on the screen when you select a region.

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                <REGION NAME>
                <REGION STATUS>
                <AGENT ORDERS>
                <AGENT COVER>
RESERVES              ASSIGNED
                AGENTS
                CHANGE ORDERS
                CHANGE COVER
                REPORT
                CONTINUE
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AGENTS: You can transfer agents in and out of regions by placing the selector bar around this choice and pressing the button. If you have several agents in RESERVES or ASSIGNED, this may take several presses until you have the combination you desire.

CHANGE ORDERS: The first time you place an agent into a region, you may not select this option. You may only order an agent to ORGANIZE RESISTANCE \*after\* he has successfully INFILTRATED a country. Put the selector bar on this option and press the button to change orders. The new orders will be reflected in <AGENTS ORDERS> above. When an agent has successfully organized resistance, the region will change to the same color as the United States.

The Nazi war effort will be delayed for several months when they try to conquer regions that are resisting. The regions will flash red as they battle with the Nazis.

CHANGE COVER: Orders will be carried out more quickly by agents in HIGH PROFILE (white icons on the War Room map) or if two or more agents are assigned to the same region. However, in both cases the agents run a higher

chance of blowing their cover and being shot. Agents who are located in countries occupied by the Nazis face a greater risk of exposure as well.

Agents in LOW PROFILE (black icons) will take longer to accomplish their mission, but have less chance of being caught.

REPORT: When an agent wishes to REPORT, his icon will FLASH rapidly on the War Room screen. Put the selector bar on REPORT and press the button. As long as you keep the agent in the same region, you may read his latest report as often as you wish.

CONTINUE: Select this option to go back to the main War Room map.

NAZI EFFICIENCY: This is how quickly the Nazis move. Several things affect this rating. They start at 80% efficiency but if the Nazis take Professor Barnstorff to the moon, they will use his expertise to raise efficiency to 100%! Besides protecting the Professor, you must also pay close attention to your agents. Occasionally they will find important Nazi targets. You can slow down the Nazi war machine by hitting these vital targets, as well as by raiding bases for lunarium.

#### Fuel Depot

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This is where lunarium is handled. The three places lunarium can be moved to/from are: LUNARIUM STORAGE, ROCKET PACK, ROCKET SHIP. To move lunarium from one place to the other, push the joystick up or down to move the transfer arrow, then left or right to move the lunarium. You cannot carry more than 250 units in the rocket ship. Click the button to leave.

#### Rocket Lab

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After you successfully find and steal rocket parts, you may go here to see the ship being built, or to see how many of the five parts you still need. Click the button to leave.

#### Takeoff

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Whenever you leave Ft. Dix, you must do the takeoff sequence. Choosing Takeoff from the Ft. Dix menu will bring up the "destination" screen. Follow the prompts on the screen to take off.

#### Secret Decoder Wheel

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The rocket pack has a self-navigation system. By transferring the proper amount of lunarium into the pack, you may travel to any region of the world using your Secret Decoder Wheel. To use the Wheel, line up the name of your current location (see the RR icon on the destination map) with the notch on the wheel and scan down the potential destination regions, noting the proper lunarium amount for the destination you desire. Then, to enter this amount, press the joystick button. You will be prompted to load the lunarium from your tank to the rocket chamber. Move the joystick LEFT or RIGHT to INCREASE or DECREASE the indicated units of lunarium. When satisfied, press the button AGAIN.

Should you accidentally enter the wrong amount, you will be given an opportunity to correct the error. If you wish to STAY in your current location, enter ZERO for the amount of lunarium in your rocket chamber.

#### Wrist Computer

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When you are in a region other than the USA (Ft.Dix) you will access your Wrist Computer at the end of any action. The choices on the wrist computer are: PICK DESTINATION, and SEND SOS. PICK DESTINATION works the same way as the Takeoff option from Ft.Dix, but you will automatically takeoff after you

transfer the lunarium to your rocket chamber. SEND SOS should be used when you do not have enough lunarium to make it back to Ft. Dix.

#### Lunarium

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This is the key to winning the game. You must be efficient in using your lunarium, as well as finding new supplies. You may obtain more lunarium in two ways: organizing resistance at a base or by raiding the base yourself.

When you organize resistance, the partisans in that region will raid the base from time to time and send back whatever lunarium they steal. This will be reflected in your lunarium storage at the Fuel Depot back at Ft. Dix.

Raiding the base yourself is faster but clearly more dangerous. If you capture more than your pack can hold the remainder will be sent back to Ft. Dix.

#### Combat

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War is hell. You won't be able to just fly around casually stealing rocket parts and lunarium. Hostile forces will assault you constantly in a variety of ways. Keep a tight grip on your radium pistol and be prepared for the following:

AERIAL COMBAT: Press the button to fire your radium pistol. There is a limit on how many shots you can fire at once, so be alert. To control your movements in the air, move the joystick UP, DOWN, LEFT and RIGHT to go in those directions. When moving UP and DOWN, tap the joystick for a slight change in altitude. If you hold the joystick UP or DOWN, you will also change the way you are aiming the pistol. Avoid exploding flak or moving directly in front of attacking planes. Don't be discouraged if you have difficulty with control at first, it takes a little practice. After all, it isn't easy steering when you're flying at over 300 miles per hour!

GROUND COMBAT: Press the button to fire your radium pistol. You will usually be in a position that doesn't provide much cover. To protect yourself move to the lowest firing position and HOLD the joystick DOWN to duck. You cannot be hit this way. Move LEFT, RIGHT, UP, and DOWN to adjust your aim.

Stay on your toes!

HAND TO HAND COMBAT: No help from futuristic technology here. Attacking your opponent takes two steps. First, PRESS and HOLD the button. Then, push the joystick UP to swing HIGH, or DOWN to swing LOW (including shots below the belt. Remember, this is war!).

Push LEFT to swing left-handed, and RIGHT for the right hand. If the button is NOT pressed, you can guard your HEAD by holding the joystick UP, and guard your BODY by holding the joystick DOWN. Watch your opponent closely.

When he lowers his arms, go for a blow to the head. When he covers his face, work on the body.

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#### SECRET DECODER WHEEL

The SECRET DECODER WHEEL prevents unauthorized use of your Himmelwurfer Rocket Pack. Whenever starting a flight to a new destination, you must consult the decoder to obtain the correct access or destination code. For further information you must consult the enclosed Quick Reference Card, upon penalty of death.



## Rocket Ranger Secret Decoder Wheel

|             | ALGERIA | ARABIA | ATLANTIC | BRAZIL | CANADA | COLUMBIA | CONGO | E. AFRICA | EGYPT | ENGLAND | FRANCE | GERMANY | ITALY | KENYA | LIBYA | MIDEAST | NIGERIA | PERSIA | PERU | SCANDINAVIA | SPAIN | SUDAN | U. S. A. | U. S. S. R. | VENEZUELA | W. AFRICA | YUGOSLAVIA |
|-------------|---------|--------|----------|--------|--------|----------|-------|-----------|-------|---------|--------|---------|-------|-------|-------|---------|---------|--------|------|-------------|-------|-------|----------|-------------|-----------|-----------|------------|
| ALGERIA     | 0       | 36     | 27       | 43     | 65     | 52       | 26    | 32        | 20    | 21      | 15     | 19      | 13    | 33    | 12    | 25      | 14      | 37     | 55   | 31          | 11    | 23    | 61       | 35          | 46        | 10        | 18         |
| ARABIA      |         | 0      | 61       | 73     | 98     | 84       | 23    | 11        | 12    | 46      | 37     | 34      | 30    | 20    | 22    | 14      | 27      | 8      | 87   | 43          | 41    | 13    | 95       | 29          | 78        | 39        | 26         |
| ATLANTIC    |         |        | 0        | 26     | 30     | 29       | 50    | 59        | 47    | 24      | 28     | 37      | 35    | 58    | 39    | 52      | 40      | 63     | 36   | 45          | 22    | 53    | 31       | 57          | 23        | 25        | 41         |
| BRAZIL      |         |        |          | 0      | 52     | 17       | 54    | 67        | 62    | 50      | 51     | 60      | 55    | 63    | 53    | 68      | 47      | 78     | 15   | 69          | 45    | 59    | 41       | 77          | 14        | 36        | 61         |
| CANADA      |         |        |          |        | 0      | 38       | 88    | 97        | 84    | 55      | 61     | 68      | 69    | 96    | 77    | 87      | 78      | 99     | 47   | 66          | 57    | 89    | 13       | 86          | 37        | 64        | 75         |
| COLUMBIA    |         |        |          |        |        | 0        | 67    | 81        | 71    | 56      | 57     | 66      | 62    | 76    | 64    | 78      | 60      | 89     | 10   | 72          | 50    | 70    | 26       | 85          | 6         | 46        | 69         |
| CONGO       |         |        |          |        |        |          | 0     | 16        | 24    | 47      | 39     | 40      | 34    | 9     | 21    | 27      | 17      | 33     | 66   | 53          | 38    | 8     | 83       | 46          | 62        | 22        | 35         |
| E. AFRICA   |         |        |          |        |        |          |       | 0         | 14    | 49      | 40     | 38      | 33    | 10    | 23    | 20      | 21      | 18     | 80   | 48          | 46    | 9     | 93       | 36          | 75        | 35        | 30         |
| EGYPT       |         |        |          |        |        |          |       |           | 0     | 33      | 25     | 23      | 18    | 21    | 8     | 11      | 31      | 77     | 53   | 42          | 81    | 8     | 12       | 66          | 62        | 71        | 15         |
| ENGLAND     |         |        |          |        |        |          |       |           |       | 0       | 9      | 12      | 15    | 52    | 27    | 36      | 35      | 45     | 64   | 16          | 10    | 41    | 57       | 32          | 53        | 31        | 20         |
| FRANCE      |         |        |          |        |        |          |       |           |       |         | 0      | 10      | 5     | 42    | 19    | 26      | 24      | 38     | 63   | 18          | 8     | 33    | 60       | 27          | 52        | 23        | 14         |
| GERMANY     |         |        |          |        |        |          |       |           |       |         |        | 0       | 6     | 43    | 17    | 21      | 29      | 32     | 72   | 13          | 15    | 31    | 69       | 20          | 61        | 30        | 8          |
| ITALY       |         |        |          |        |        |          |       |           |       |         |        |         | 0     | 38    | 10    | 19      | 22      | 31     | 68   | 20          | 12    | 26    | 67       | 23          | 56        | 24        | 7          |
| KENYA       |         |        |          |        |        |          |       |           |       |         |        |         |       | 0     | 25    | 29      | 19      | 28     | 77   | 55          | 44    | 11    | 92       | 47          | 71        | 32        | 36         |
| LIBYA       |         |        |          |        |        |          |       |           |       |         |        |         |       |       | 0     | 15      | 11      | 24     | 67   | 32          | 20    | 14    | 72       | 28          | 56        | 18        | 16         |
| MIDEAST     |         |        |          |        |        |          |       |           |       |         |        |         |       |       |       | 0       | 28      | 12     | 82   | 30          | 31    | 18    | 86       | 16          | 72        | 34        | 13         |
| NIGERIA     |         |        |          |        |        |          |       |           |       |         |        |         |       |       |       |         | 0       | 30     | 62   | 41          | 25    | 12    | 74       | 38          | 54        | 15        | 23         |
| PERSIA      |         |        |          |        |        |          |       |           |       |         |        |         |       |       |       |         |         | 0      | 92   | 40          | 42    | 21    | 97       | 22          | 83        | 44        | 25         |
| PERU        |         |        |          |        |        |          |       |           |       |         |        |         |       |       |       |         |         |        | 0    | 79          | 56    | 73    | 35       | 90          | 13        | 48        | 74         |
| SCANDINAVIA |         |        |          |        |        |          |       |           |       |         |        |         |       |       |       |         |         |        |      | 0           | 24    | 44    | 70       | 21          | 67        | 42        | 22         |
| SPAIN       |         |        |          |        |        |          |       |           |       |         |        |         |       |       |       |         |         |        |      |             | 0     | 39    | 55       | 37          | 43        | 21        | 19         |
| SUDAN       |         |        |          |        |        |          |       |           |       |         |        |         |       |       |       |         |         |        |      |             |       | 0     | 85       | 34          | 65        | 28        | 24         |
| U. S. A.    |         |        |          |        |        |          |       |           |       |         |        |         |       |       |       |         |         |        |      |             |       |       | 0        | 88          | 27        | 59        | 73         |
| U. S. S. R. |         |        |          |        |        |          |       |           |       |         |        |         |       |       |       |         |         |        |      |             |       |       |          | 0           | 79        | 45        | 17         |
| VENEZUELA   |         |        |          |        |        |          |       |           |       |         |        |         |       |       |       |         |         |        |      |             |       |       |          |             | 0         | 40        | 63         |
| W. AFRICA   |         |        |          |        |        |          |       |           |       |         |        |         |       |       |       |         |         |        |      |             |       |       |          |             |           | 0         | 29         |
| YUGOSLAVIA  |         |        |          |        |        |          |       |           |       |         |        |         |       |       |       |         |         |        |      |             |       |       |          |             |           |           | 0          |

\*\ORIGIN\\*

ALGERIA

| Destination     | Distance       | Destination |
|-----------------|----------------|-------------|
| ALGERIA-----    | 00-----31----- | KENYA       |
| ARABIA-----     | 28-----10----- | LIBYA       |
| ATLANTIC-----   | 20-----19----- | MIDEAST     |
| BRAZIL-----     | 43-----23----- | NIGERIA     |
| CANADA-----     | 37-----30----- | PERSIA      |
| COLUMBIA-----   | 44-----50----- | PERU        |
| CONGO-----      | 25-----22----- | SCANDINAVIA |
| EAST AFRICA---- | 29-----13----- | SPAIN       |
| EGYPT-----      | 21-----24----- | SUDAN       |
| ENGLAND-----    | 16-----36----- | U. S. A.    |
| FRANCE-----     | 14-----26----- | U. S. S. R. |
| GERMANY-----    | 17-----40----- | VENEZUELA   |
| ITALY-----      | 15-----18----- | WEST AFRICA |
|                 | 12-----        | YUGOSLAVIA  |

\*\ORIGIN\\*

ARABIA

| Destination     | Distance       | Destination |
|-----------------|----------------|-------------|
| ALGERIA-----    | 28-----26----- | KENYA       |
| ARABIA-----     | 00-----20----- | LIBYA       |
| ATLANTIC-----   | 41-----17----- | MIDEAST     |
| BRAZIL-----     | 57-----31----- | NIGERIA     |
| CANADA-----     | 59-----12----- | PERSIA      |
| COLUMBIA-----   | 65-----70----- | PERU        |
| CONGO-----      | 30-----32----- | SCANDINAVIA |
| EAST AFRICA---- | 18-----33----- | SPAIN       |
| EGYPT-----      | 14-----19----- | SUDAN       |
| ENGLAND-----    | 34-----58----- | U. S. A.    |

|              |         |         |             |
|--------------|---------|---------|-------------|
| FRANCE-----  | 29----- | 23----- | U.S.S.R.    |
| GERMANY----- | 27----- | 61----- | VENEZUELA   |
| ITALY-----   | 24----- | 37----- | WEST AFRICA |
|              |         | 22----- | YUGOSLAVIA  |

\*\ORIGIN\  
ATLANTIC

| Destination    | Distance | Destination |             |
|----------------|----------|-------------|-------------|
| -----          | -----    | -----       |             |
| ALGERIA-----   | 20-----  | 43-----     | KENYA       |
| ARABIA-----    | 41-----  | 29-----     | LIBYA       |
| ATLANTIC-----  | 00-----  | 31-----     | MIDEAST     |
| BRAZIL-----    | 32-----  | 35-----     | NIGERIA     |
| CANADA-----    | 27-----  | 42-----     | PERSIA      |
| COLUMBIA-----  | 34-----  | 44-----     | PERU        |
| CONGO-----     | 37-----  | 25-----     | SCANDINAVIA |
| EAST AFRICA--- | 39-----  | 17-----     | SPAIN       |
| EGYPT-----     | 33-----  | 36-----     | SUDAN       |
| ENGLAND-----   | 18-----  | 23-----     | U.S.A.      |
| FRANCE-----    | 19-----  | 38-----     | U.S.S.R.    |
| GERMANY-----   | 26-----  | 30-----     | VENEZUELA   |
| ITALY-----     | 22-----  | 24-----     | WEST AFRICA |
|                |          | 28-----     | YUGOSLAVIA  |

\*\ORIGIN\  
BRAZIL

| Destination    | Distance | Destination |             |
|----------------|----------|-------------|-------------|
| -----          | -----    | -----       |             |
| ALGERIA-----   | 43-----  | 46-----     | KENYA       |
| ARABIA-----    | 57-----  | 42-----     | LIBYA       |
| ATLANTIC-----  | 32-----  | 54-----     | MIDEAST     |
| BRAZIL-----    | 00-----  | 37-----     | NIGERIA     |
| CANADA-----    | 49-----  | 61-----     | PERSIA      |
| COLUMBIA-----  | 27-----  | 25-----     | PERU        |
| CONGO-----     | 38-----  | 55-----     | SCANDINAVIA |
| EAST AFRICA--- | 48-----  | 40-----     | SPAIN       |
| EGYPT-----     | 52-----  | 44-----     | SUDAN       |
| ENGLAND-----   | 50-----  | 41-----     | U.S.A.      |
| FRANCE-----    | 45-----  | 60-----     | U.S.S.R.    |
| GERMANY-----   | 53-----  | 28-----     | VENEZUELA   |
| ITALY-----     | 47-----  | 33-----     | WEST AFRICA |
|                |          | 51-----     | YUGOSLAVIA  |

\*\ORIGIN\  
CANADA

| Destination   | Distance | Destination |         |
|---------------|----------|-------------|---------|
| -----         | -----    | -----       |         |
| ALGERIA-----  | 37-----  | 64-----     | KENYA   |
| ARABIA-----   | 59-----  | 44-----     | LIBYA   |
| ATLANTIC----- | 27-----  | 47-----     | MIDEAST |
| BRAZIL-----   | 49-----  | 48-----     | NIGERIA |
| CANADA-----   | 00-----  | 55-----     | PERSIA  |
| COLUMBIA----- | 28-----  | 40-----     | PERU    |

|                |         |         |             |
|----------------|---------|---------|-------------|
| CONGO-----     | 56----- | 34----- | SCANDINAVIA |
| EAST AFRICA--- | 62----- | 35----- | SPAIN       |
| EGYPT-----     | 51----- | 57----- | SUDAN       |
| ENGLAND-----   | 31----- | 10----- | U.S.A.      |
| FRANCE-----    | 36----- | 41----- | U.S.S.R.    |
| GERMANY-----   | 38----- | 26----- | VENEZUELA   |
| ITALY-----     | 39----- | 42----- | WEST AFRICA |
|                |         | 43----- | YUGOSLAVIA  |

\*\ORIGIN\  
COLUMBIA

| Destination<br>~~~~~ | Distance | Destination<br>~~~~~ |             |
|----------------------|----------|----------------------|-------------|
| ALGERIA-----         | 44-----  | 62-----              | KENYA       |
| ARABIA-----          | 65-----  | 49-----              | LIBYA       |
| ATLANTIC-----        | 34-----  | 57-----              | MIDEAST     |
| BRAZIL-----          | 27-----  | 45-----              | NIGERIA     |
| CANADA-----          | 28-----  | 66-----              | PERSIA      |
| COLUMBIA-----        | 00-----  | 17-----              | PERU        |
| CONGO-----           | 52-----  | 51-----              | SCANDINAVIA |
| EAST AFRICA---       | 64-----  | 43-----              | SPAIN       |
| EGYPT-----           | 59-----  | 61-----              | SUDAN       |
| ENGLAND-----         | 47-----  | 26-----              | U.S.A.      |
| FRANCE-----          | 46-----  | 58-----              | U.S.S.R.    |
| GERMANY-----         | 50-----  | 12-----              | VENEZUELA   |
| ITALY-----           | 48-----  | 39-----              | WEST AFRICA |
|                      |          | 53-----              | YUGOSLAVIA  |

\*\ORIGIN\  
CONGO

| Destination<br>~~~~~ | Distance | Destination<br>~~~~~ |             |
|----------------------|----------|----------------------|-------------|
| ALGERIA-----         | 25-----  | 17-----              | KENYA       |
| ARABIA-----          | 30-----  | 24-----              | LIBYA       |
| ATLANTIC-----        | 37-----  | 26-----              | MIDEAST     |
| BRAZIL-----          | 38-----  | 15-----              | NIGERIA     |
| CANADA-----          | 56-----  | 31-----              | PERSIA      |
| COLUMBIA-----        | 52-----  | 54-----              | PERU        |
| CONGO-----           | 00-----  | 40-----              | SCANDINAVIA |
| EAST AFRICA---       | 22-----  | 29-----              | SPAIN       |
| EGYPT-----           | 23-----  | 20-----              | SUDAN       |
| ENGLAND-----         | 36-----  | 55-----              | U.S.A.      |
| FRANCE-----          | 33-----  | 39-----              | U.S.S.R.    |
| GERMANY-----         | 34-----  | 50-----              | VENEZUELA   |
| ITALY-----           | 32-----  | 21-----              | WEST AFRICA |
|                      |          | 27-----              | YUGOSLAVIA  |

\*\ORIGIN\  
EAST AFRICA

| Destination<br>~~~~~ | Distance | Destination<br>~~~~~ |         |
|----------------------|----------|----------------------|---------|
| ALGERIA-----         | 29-----  | 14-----              | KENYA   |
| ARABIA-----          | 18-----  | 23-----              | LIBYA   |
| ATLANTIC-----        | 39-----  | 24-----              | MIDEAST |
| BRAZIL-----          | 48-----  | 25-----              | NIGERIA |
| CANADA-----          | 62-----  | 19-----              | PERSIA  |

|             |    |    |             |
|-------------|----|----|-------------|
| COLUMBIA    | 64 | 67 | PERU        |
| CONGO       | 22 | 35 | SCANDINAVIA |
| EAST AFRICA | 00 | 31 | SPAIN       |
| EGYPT       | 15 | 12 | SUDAN       |
| ENGLAND     | 37 | 61 | U.S.A.      |
| FRANCE      | 32 | 28 | U.S.S.R.    |
| GERMANY     | 33 | 60 | VENEZUELA   |
| ITALY       | 30 | 34 | WEST AFRICA |
|             |    | 26 | YUGOSLAVIA  |

\*\ORIGIN\  
EGYPT

| Destination | Distance | Destination |            |
|-------------|----------|-------------|------------|
| ALGERIA     | 21       | KENYA       |            |
| ARABIA      | 14       | LIBYA       |            |
| ATLANTIC    | 33       | MIDEAST     |            |
| BRAZIL      | 52       | NIGERIA     |            |
| CANADA      | 51       | PERSIA      |            |
| COLUMBIA    | 59       | PERU        |            |
| CONGO       | 23       | SCANDINAVIA |            |
| EAST AFRICA | 15       | SPAIN       |            |
| EGYPT       | 00       | SUDAN       |            |
| ENGLAND     | 27       | U.S.A.      |            |
| FRANCE      | 24       | U.S.S.R.    |            |
| GERMANY     | 20       | VENEZUELA   |            |
| ITALY       | 19       | WEST AFRICA |            |
|             |          | 16          | YUGOSLAVIA |

\*\ORIGIN\  
ENGLAND

| Destination | Distance | Destination |            |
|-------------|----------|-------------|------------|
| ALGERIA     | 16       | KENYA       |            |
| ARABIA      | 34       | LIBYA       |            |
| ATLANTIC    | 18       | MIDEAST     |            |
| BRAZIL      | 50       | NIGERIA     |            |
| CANADA      | 51       | PERSIA      |            |
| COLUMBIA    | 47       | PERU        |            |
| CONGO       | 36       | SCANDINAVIA |            |
| EAST AFRICA | 37       | SPAIN       |            |
| EGYPT       | 27       | SUDAN       |            |
| ENGLAND     | 00       | U.S.A.      |            |
| FRANCE      | 08       | U.S.S.R.    |            |
| GERMANY     | 11       | VENEZUELA   |            |
| ITALY       | 13       | WEST AFRICA |            |
|             |          | 20          | YUGOSLAVIA |

\*\ORIGIN\  
FRANCE

| Destination | Distance | Destination |
|-------------|----------|-------------|
| ALGERIA     | 14       | KENYA       |
| ARABIA      | 29       | LIBYA       |

|             |    |    |             |
|-------------|----|----|-------------|
| ATLANTIC    | 19 | 20 | MIDEAST     |
| BRAZIL      | 45 | 30 | NIGERIA     |
| CANADA      | 36 | 28 | PERSIA      |
| COLUMBIA    | 46 | 52 | PERU        |
| CONGO       | 33 | 16 | SCANDINAVIA |
| EAST AFRICA | 32 | 09 | SPAIN       |
| EGYPT       | 24 | 27 | SUDAN       |
| ENGLAND     | 08 | 35 | U.S.A.      |
| FRANCE      | 00 | 21 | U.S.S.R.    |
| GERMANY     | 12 | 42 | VENEZUELA   |
| ITALY       | 10 | 25 | WEST AFRICA |
|             |    | 15 | YUGOSLAVIA  |

\*\ORIGIN\  
GERMANY

| Destination | Distance | Destination   |
|-------------|----------|---------------|
| ALGERIA     | 17 35    | KENYA         |
| ARABIA      | 27 18    | LIBYA         |
| ATLANTIC    | 26 14    | MIDEAST       |
| BRAZIL      | 53 32    | NIGERIA       |
| CANADA      | 38 24    | PERSIA        |
| COLUMBIA    | 50 58    | PERU          |
| CONGO       | 34 10    | SCANDINAVIA   |
| EAST AFRICA | 33 16    | SPAIN         |
| EGYPT       | 20 29    | SUDAN         |
| ENGLAND     | 11 39    | U.S.A.        |
| FRANCE      | 12 15    | U.S.S.R.      |
| GERMANY     | 00 45    | VENEZUELA     |
| ITALY       | 09 31    | WEST AFRICA   |
|             |          | 13 YUGOSLAVIA |

\*\ORIGIN\  
ITALY

| Destination | Distance | Destination   |
|-------------|----------|---------------|
| ALGERIA     | 15 33    | KENYA         |
| ARABIA      | 24 14    | LIBYA         |
| ATLANTIC    | 22 12    | MIDEAST       |
| BRAZIL      | 47 29    | NIGERIA       |
| CANADA      | 39 25    | PERSIA        |
| COLUMBIA    | 48 57    | PERU          |
| CONGO       | 32 17    | SCANDINAVIA   |
| EAST AFRICA | 30 11    | SPAIN         |
| EGYPT       | 19 26    | SUDAN         |
| ENGLAND     | 13 38    | U.S.A.        |
| FRANCE      | 10 18    | U.S.S.R.      |
| GERMANY     | 09 44    | VENEZUELA     |
| ITALY       | 00 27    | WEST AFRICA   |
|             |          | 08 YUGOSLAVIA |

\*\ORIGIN\  
KENYA

| Destination | Destination |
|-------------|-------------|
|-------------|-------------|

| ~~~~~           | Distance  | ~~~~~       |
|-----------------|-----------|-------------|
| ALGERIA-----    | 31-----00 | KENYA       |
| ARABIA-----     | 26-----28 | LIBYA       |
| ATLANTIC-----   | 43-----30 | MIDEAST     |
| BRAZIL-----     | 46-----22 | NIGERIA     |
| CANADA-----     | 64-----27 | PERSIA      |
| COLUMBIA-----   | 62-----65 | PERU        |
| CONGO-----      | 17-----39 | SCANDINAVIA |
| EAST AFRICA---- | 14-----36 | SPAIN       |
| EGYPT-----      | 25-----18 | SUDAN       |
| ENGLAND-----    | 40-----63 | U.S.A.      |
| FRANCE-----     | 37-----34 | U.S.S.R.    |
| GERMANY-----    | 35-----59 | VENEZUELA   |
| ITALY-----      | 33-----32 | WEST AFRICA |
|                 | 29-----   | YUGOSLAVIA  |

\*\ORIGIN\  
LIBYA

| Destination     | Distance  | Destination |
|-----------------|-----------|-------------|
| ~~~~~           |           | ~~~~~       |
| ALGERIA-----    | 10-----28 | KENYA       |
| ARABIA-----     | 20-----00 | LIBYA       |
| ATLANTIC-----   | 29-----13 | MIDEAST     |
| BRAZIL-----     | 42-----19 | NIGERIA     |
| CANADA-----     | 44-----22 | PERSIA      |
| COLUMBIA-----   | 49-----56 | PERU        |
| CONGO-----      | 24-----27 | SCANDINAVIA |
| EAST AFRICA---- | 23-----15 | SPAIN       |
| EGYPT-----      | 12-----16 | SUDAN       |
| ENGLAND-----    | 21-----43 | U.S.A.      |
| FRANCE-----     | 17-----25 | U.S.S.R.    |
| GERMANY-----    | 18-----46 | VENEZUELA   |
| ITALY-----      | 14-----26 | WEST AFRICA |
|                 | 11-----   | YUGOSLAVIA  |

\*\ORIGIN\  
MIDEAST

| Destination     | Distance  | Destination |
|-----------------|-----------|-------------|
| ~~~~~           |           | ~~~~~       |
| ALGERIA-----    | 19-----30 | KENYA       |
| ARABIA-----     | 17-----13 | LIBYA       |
| ATLANTIC-----   | 31-----00 | MIDEAST     |
| BRAZIL-----     | 54-----28 | NIGERIA     |
| CANADA-----     | 47-----18 | PERSIA      |
| COLUMBIA-----   | 57-----64 | PERU        |
| CONGO-----      | 26-----21 | SCANDINAVIA |
| EAST AFRICA---- | 24-----25 | SPAIN       |
| EGYPT-----      | 11-----23 | SUDAN       |
| ENGLAND-----    | 22-----46 | U.S.A.      |
| FRANCE-----     | 20-----16 | U.S.S.R.    |
| GERMANY-----    | 14-----52 | VENEZUELA   |
| ITALY-----      | 12-----36 | WEST AFRICA |
|                 | 10-----   | YUGOSLAVIA  |

\*\ORIGIN\  
SUDAN

| Destination    | Distance       | Destination |
|----------------|----------------|-------------|
| ~~~~~          |                | ~~~~~       |
| ALGERIA-----   | 24-----18----- | KENYA       |
| ARABIA-----    | 19-----16----- | LIBYA       |
| ATLANTIC-----  | 36-----23----- | MIDEAST     |
| BRAZIL-----    | 44-----17----- | NIGERIA     |
| CANADA-----    | 57-----21----- | PERSIA      |
| COLUMBIA-----  | 61-----62----- | PERU        |
| CONGO-----     | 20-----31----- | SCANDINAVIA |
| EAST AFRICA--- | 12-----28----- | SPAIN       |
| EGYPT-----     | 13-----00----- | SUDAN       |
| ENGLAND-----   | 30-----56----- | U.S.A.      |
| FRANCE-----    | 27-----32----- | U.S.S.R.    |
| GERMANY-----   | 29-----55----- | VENEZUELA   |
| ITALY-----     | 26-----22----- | WEST AFRICA |
|                | 25-----        | YUGOSLAVIA  |

\*\ORIGIN\  
U.S.A.

| Destination    | Distance       | Destination |
|----------------|----------------|-------------|
| ~~~~~          |                | ~~~~~       |
| ALGERIA-----   | 36-----63----- | KENYA       |
| ARABIA-----    | 58-----43----- | LIBYA       |
| ATLANTIC-----  | 23-----46----- | MIDEAST     |
| BRAZIL-----    | 41-----47----- | NIGERIA     |
| CANADA-----    | 10-----54----- | PERSIA      |
| COLUMBIA-----  | 26-----33----- | PERU        |
| CONGO-----     | 55-----37----- | SCANDINAVIA |
| EAST AFRICA--- | 61-----34----- | SPAIN       |
| EGYPT-----     | 50-----56----- | SUDAN       |
| ENGLAND-----   | 32-----00----- | U.S.A.      |
| FRANCE-----    | 35-----45----- | U.S.S.R.    |
| GERMANY-----   | 39-----24----- | VENEZUELA   |
| ITALY-----     | 38-----40----- | WEST AFRICA |
|                | 42-----        | YUGOSLAVIA  |

\*\ORIGIN\  
U.S.S.R.

| Destination    | Distance       | Destination |
|----------------|----------------|-------------|
| ~~~~~          |                | ~~~~~       |
| ALGERIA-----   | 26-----34----- | KENYA       |
| ARABIA-----    | 23-----25----- | LIBYA       |
| ATLANTIC-----  | 38-----16----- | MIDEAST     |
| BRAZIL-----    | 60-----40----- | NIGERIA     |
| CANADA-----    | 41-----20----- | PERSIA      |
| COLUMBIA-----  | 58-----66----- | PERU        |
| CONGO-----     | 39-----14----- | SCANDINAVIA |
| EAST AFRICA--- | 28-----24----- | SPAIN       |
| EGYPT-----     | 22-----32----- | SUDAN       |
| ENGLAND-----   | 19-----45----- | U.S.A.      |
| FRANCE-----    | 21-----00----- | U.S.S.R.    |
| GERMANY-----   | 15-----53----- | VENEZUELA   |
| ITALY-----     | 18-----44----- | WEST AFRICA |
|                | 17-----        | YUGOSLAVIA  |

\*\ORIGIN\  
U.S.S.R.

# VENEZUELA

| Destination    | Distance  | Destination |
|----------------|-----------|-------------|
| ALGERIA-----   | 40-----59 | KENYA       |
| ARABIA-----    | 61-----46 | LIBYA       |
| ATLANTIC-----  | 30-----52 | MIDEAST     |
| BRAZIL-----    | 28-----43 | NIGERIA     |
| CANADA-----    | 26-----62 | PERSIA      |
| COLUMBIA-----  | 12-----20 | PERU        |
| CONGO-----     | 50-----47 | SCANDINAVIA |
| EAST AFRICA--- | 60-----39 | SPAIN       |
| EGYPT-----     | 54-----55 | SUDAN       |
| ENGLAND-----   | 41-----24 | U.S.A.      |
| FRANCE-----    | 42-----53 | U.S.S.R.    |
| GERMANY-----   | 45-----00 | VENEZUELA   |
| ITALY-----     | 44-----35 | WEST AFRICA |
|                | 49-----   | YUGOSLAVIA  |

\*\ORIGIN\  
WEST AFRICA

| Destination    | Distance  | Destination |
|----------------|-----------|-------------|
| ALGERIA-----   | 18-----32 | KENYA       |
| ARABIA-----    | 37-----26 | LIBYA       |
| ATLANTIC-----  | 24-----36 | MIDEAST     |
| BRAZIL-----    | 33-----16 | NIGERIA     |
| CANADA-----    | 42-----41 | PERSIA      |
| COLUMBIA-----  | 39-----43 | PERU        |
| CONGO-----     | 21-----38 | SCANDINAVIA |
| EAST AFRICA--- | 34-----23 | SPAIN       |
| EGYPT-----     | 29-----22 | SUDAN       |
| ENGLAND-----   | 28-----40 | U.S.A.      |
| FRANCE-----    | 25-----44 | U.S.S.R.    |
| GERMANY-----   | 31-----35 | VENEZUELA   |
| ITALY-----     | 27-----00 | WEST AFRICA |
|                | 30-----   | YUGOSLAVIA  |

\*\ORIGIN\  
YUGOSLAVIA

| Destination    | Distance  | Destination |
|----------------|-----------|-------------|
| ALGERIA-----   | 12-----29 | KENYA       |
| ARABIA-----    | 22-----11 | LIBYA       |
| ATLANTIC-----  | 28-----10 | MIDEAST     |
| BRAZIL-----    | 51-----24 | NIGERIA     |
| CANADA-----    | 43-----23 | PERSIA      |
| COLUMBIA-----  | 53-----61 | PERU        |
| CONGO-----     | 27-----18 | SCANDINAVIA |
| EAST AFRICA--- | 26-----19 | SPAIN       |
| EGYPT-----     | 16-----25 | SUDAN       |
| ENGLAND-----   | 20-----42 | U.S.A.      |
| FRANCE-----    | 15-----17 | U.S.S.R.    |
| GERMANY-----   | 13-----49 | VENEZUELA   |
| ITALY-----     | 08-----30 | WEST AFRICA |
|                | 00-----   | YUGOSLAVIA  |